



RECOMMENDED NATIVE PLANTS FOR A SUNNY SITE ON A SLOPE

| SPECIES | spacing | AVG. HEIGHT |
| :---: | :---: | :---: |
| TREES |  |  |
| BIG LEAF MAPLE <br> (ACER MACROPHYLLUM) | 9 on Center | $75^{\prime}$ |
| RED ALDER (ALNUS RUBRA) | $9{ }^{\prime}$ ON CENTER | 60 |
| DOUGLAS FIR (PSEUCOTSUGA MENZIESII | 9 ON CENTER | 100' |
| SHRUBS |  |  |
| BEAKED HAZELNUT (CORYLUS CORNUTA) | $6^{\prime}$ ON CENTER | 11 |
| OCEANSPRAY | 4.5' On CENTER | 7 |
| (HOLODISCUS DISCOLOR) |  |  |
| MOCK ORANGE (PHILADELPHUS LEWIIIII) | 4.5' On CENTER | $8^{8}$ |
| THIMBLEBERRY <br> (RUBUS PARVIFLORUS) | $4.5{ }^{\circ} \mathrm{ON}$ CENTER | $8^{\prime}$ |
| SNOWBERRY <br> (SYMPHORICARPOS ALBUS) | 4.5' ON CENTER | 5 |
| GROUNDCOVER |  |  |
| KINNIKINNICK <br> (ARCTOSTAPHYLOS UVA-URSI) | $2{ }^{\prime}$ on center | 6-8" |
| COASTAL STRAWBERRY (FRAGARIA CHLLOENSIS) | $2^{\prime}$ ON CENTER | 4-6" |
| IDAHO FESCUE | $2^{\prime}$ ON CENTER | $2.5{ }^{\text {' }}$ |
| ${ }^{\text {(FESTUCA IDAHOENSIS) }}$ |  |  |
| ${ }_{\text {S }}^{\text {SWWORD FERN }}$ (POLYSTICHUM MUNITUM) | $2^{\prime}$ On Center | ${ }^{\text {' }}$ |
| FIREWEED <br> (EPILOBIUM ANGUSTIFOLIUM) | $2{ }^{\prime}$ on center | 1.5-2 |



NATIVE VEGETATED FLOWPATH SEGMENT (NVFS) CRITERIA:
A. the flowpath segment must be over well-established lawn or pasture, LANDSAPING WITH WELL-ESTABISHED GROUNDCOVER, OR NATVE VEGETATION HELP NISPERSE AND INFLTTRATE FLOWS AND TO PREV MSNT EROEDNSE ENOUGH TO B. THE FLOWPATH SEGMENT MUST BE ONSITE OR IN AN OFFSITE TRACT OR
B. TEAELONPATHEGMENTMUSTBE ONSITI OR INAN OFFSITE TRACT OR
C. THE SLOPE OF THE FLOWPATH SEGMENT MUST BE NO STEEPER THAN $15 \%$ FOR
 AND ANY DOWNSTREAM IMPERVIOUS SURFACE OR DRAINAGE FEATURE SUCH AS
PIPE, DITCH, STREAM, RIVER, POND, LAKE, OR WETLAND. ALL OR A PORTION OF THE FLOWPATH SEGMENT MAY BE LOCATED WITHIN A CRITICAL AREA BUFFER.



## 



REV. DATE:
$\overline{\text { DATE: }}=\overline{08 / 2012023}$
DATE: 08/2012023



## maintenance standards

1. ANY damage shall be reparred ummedately
2. If COMCENTRATED FLOWS ARE EVDENT UPHIL OF THE FENCE. THEY.


3. SEDIMENT MUST BE REMOVED WHEN THE SEDMENT IS 6 ICHES HIG



FIGURE D.3.4.A STABILIZED CONSTRUCTION ENTRANCE DETAL

## CONSTRUCTION NOISE NOTES


 ANA WARNING WLL BE ISSUED IF NO CONSTRUCTION NOISE VIOLATON HAS BEEN COMMITED BY THE SAME PERSON WTHIN THE
AREMOUS WO YEARS AT ANY LOCATON WTHIN THE CITY
 PERSON WTHIN THE PREEIOUS TWO YEERS AT ANY LLCCATON WTHIN THE CITY.
A CITATION WIL BE ISSUED AND A $\$ 250$ FINE IMPOSED IF TWO OR MORE PREVOUS VIOLATION HAVE BEEN COMMITTED BY THE A CITATION WLL BE ISSUED AND A $\$ 250$ FINE IMPOSED IF TWW OR MORE PREVIO
SAME PERSON WTHIN THE PREVOUS TWO YEARS AT ANY LOCATON WIHN THE CIM
FORR ALL COMMERCILL MULTI-FAMLIY, AND NEW SIGLE-FAMLY HOME
CONSTRUCTON-REATED NOISE MI ALOWED:

## : 7 AM TO 6 PM ON WEEKOAS 9 AM TO 6 PM OATURAYS

construction-related noise is not allowed:
OUTIIIE OF ALLOWABLE HOURS
LEGALL HOLDAYS
ADDITIONAL ESC NOTES
Rosion Control measures show on mis plan are nne reaneman
ROSION AND SEDIMENT CONTROL RECOMMENDED
Pre






CONOTION CRSHANGE CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE




ELEMENT 1: PRESERVE VEGETATIONMARK CLEARING LIMITS
BEFORE BEGINNING LAND DISTURBNG ACTIVITISS, NCLIUDNG Before begining Land disturbing activities, including
CLEARING And grading, cleari Mark all clearing imits, SENSITIVE AREAS AND THEIR buffers, AND Trees that are to EE PRESERVED WITHIN THE CONSTRUCTION AREA RETAIN THE DUFF LAYER, NATIVE TOP SOLL, AND NATURAL
VEGETATION IN AN UNDISTURBED STATE TO THE MAXIMUM Degree practicable.
lement 2: establish constructionaccess IF PoSSIBLE.
STABIIIZE ACEESS PoINTS WITH A PAD OF QUARRY SPALLS, Racking of sediment onto public roads
 tracking sediment onto roads.
If SEDIMENT IS TRACKED OFF SITE, CLEAN THE AFFECTED RADWAY THOROUGHLY AT THE END OF EACH DAY, OR MO WEATHER). REMOVE SEDIMENT FROM ROADS BY SHOVELING, WEEPING, OR PICK UP AND TRANSPORT THE SEDIMENT TO A Conduct street washing only after IN ACCORDANCE WITH THE ABOVE BULLET
CONTROL STREET WASH WASTEWATER BY
CONTROL STREET WASH WASTEWATER BY P PUMPNG BACK
N-SITE, OR OTHERWISE RREVENT IT RROM DISCHARGNG SYSTEMS TRIBUTARY TO WATERS OF THE STATE.
Llement 3: Control flow rates
PROTECT PROPERTES AND WATERWAYS DOWNSTREAM OF PROTECT PROPERTIES AND WAAER WAYS DDWNSTREAM OF
DEVELOPMENT SITES FROM EROSION AND THE ASSOCIATED DISCHARGE
OF TURBID WATERS DUE TO NCREASES N THE YELOCITY AND PEAK OF TURBID WATERS DUE TO INCREASES IN THE VEEOCITY AND DEAK
OLUMMTRIC FLOW RATE OF STORMWTER RUNOFF FROM MHE PROECT site.
WHERE NECESSARY To Comply with the bullet above, construct Tornwater retention or detention facluties as one of tur
Irst step in grading. assure that detention facilities UNCTTION PROPERLY BEFORE CONSTRUCTING SITE IMPROVEMENTS (E.G. MPERVIIOUS SURFACESS).
If Pervanent inil tration ponds are used for flow control
During construction, protect these faclities from sitation
Uuing the construction phas
ELeMENT 4: INSTALL SEDIMENT CONTROLS
DESIGN, INSTALL, AND MAINTAIN EFFECTIVE EROSION CONTROLS AN DESIGN, INSTALL, AND MAINTAIN EFFECTIVE ERRSION CONTROLS AN SEDIMENT CONTROLS TO MINIMIZE THE DISCHARGE OF POLLUTANTS
CONSTRUCT SEDIMENT CONTROL BMPS (SEDIMENT PONDS, TRAPS, FLTERS, ETC.) AS ONE OF THE FIRST STEPS IN GRADING. THESE BMPS
SHALL BE FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES hhall be fun
take place.
MINIMIZE SEDIMENT DISCHARGES FROM THE STtE. THE DESIGN,
NSTALLATION AND MAINTENANCE OF EROSION AND SEDM CONTROLS MUST ADDRESS FACTORS SUCH AS THE AMOUNT, FREQUENCY, NTENSITY AND DURATION OF FRECLITIATIION, THE NATURE OF
ESULTING STORMWATER RUNOFF, AND SOIL CHARACTERISTICS, ECLUDING THE RANGE OF SOIL PARTICLE SIZES EXPECTED TED TO BE resent on the site.
Direct stornwater runoff from disturbed areas through
 DISCHARGE TO AN INELTTRATION FACLITYY. RUNOFF FROM FULLY Stabillzed areas may be discharged without a sediment REMOVAL BMP, BUT MUST MEET THE FLOW CONTROL PERFORMANCE
TANDARD IN ELEMENT \#3 BULET +1. LOCATE BMPS INTENDED TO TRAP SEDIMENT ON-STTE N A A MANNER
VOID INTERERENCE WITH THE MOVEMENT OF JUVENIL SALMONID VOID INTERFERENCE WITH THE MOVEMENT OF JUVENILE SALMONID WHERE FEASIBLE, DESIGN OUTLET STRUCTURES THAT WITHDRA MPounded stornwater from the surface to avoid dicharging
SEDIMENT THAT I still suspended Lower iv the water coumio

Llement 5: STABLIzE Solls
TABLLZE EXPosED AND UNWORKED SOLLS BY APPLICATION OF EFFECTIVE BMP TEMPORARY AND PERMANENT SEEDING, SODDING, MULCHING, PLASTIC COVERIN Rosion Control fabrics and matting, soll application of OLYACRYLAMIDE (PAM), The Eafly application of Gravel base early on
REAS To be paved and dust contro CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINMIZE oil erosion.
OTAROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND OTAL STORMWATER VOLUME, TO MINMIIZE EROSION AT outlets
INIMIZE DOWNSTREAM CHANNEL AND STREAM BANK EROSION.
IILS MUST NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN THE TIME

DURING THE WET SEASON (OCTOBER 1 - APRLL 30): 2 DAYS NEEDLED BASED ON THE WEATHER FORECAST.
STABIIZE SOIL STOCKPILES FROM RROSION, PROTECTED WITH SEDIMENT STABILIZE SOIL STOCKPILES FROM EROSIIN, PROTECTED wITH SEDIMENT DRAPPING MEASURES, AND WHERE POSSIBLE, BE LOCATED AWAY FROM STOR
DRAN ILETS, WATERWAYA AND DRAINGEE CHANNELS.
. MINIIIZE THE AMOUNT OF SOLL EXPOSED DURING CONSTRUCTION ACTVITY
MINIIIZE THE DISTURBANCE OF STEEP SLOPFS

element 6: protect slopes
DESGN AND CONSTRUCT CUT-AND-FILL SLOPES IN A MANNER TO MIIIMIIE RoSion. APPLICABLE PRACTICES Include, BUT ARE NOT LIMITted TT, REDUCING
ONTINOOUS LENGTH OF SLOPE WITH TERRACING AND DIVERTINSS, REDUCING Lope stebpness, and roughening slope surfaces (for example, track VALKING).
IVERT OFF-S
opes afd ite stormwater (run-on) or ground water away from Lopes And disturbed areas with interceptor dikes, pres Andor swales Generated on the site.
at The top of slopes, collect drainage in pipe slope drains or protected ChanNels to prevent erosion.
TEMPORARY PIPE SLOPE DRAINS MUST HANDLE THE PEAK 10-MINUTE VELOCITY DEVELOPED CONDITION. ALTERNATIVELY, THE 10 -YEAR AND 1 -HOUR FLOW RATE PREDICTED BY AN APPROVED CONTINUOUS RUNOFF MODEL, INCREASED BY A
FACTOR OF 1.6 MAY BE USED THE HYDROLOGIC ANALYSIS MUST USE THE
 Tributary areas outside the proiect limits. for tributary areas on the PROIECT STTE, THE ANALYSIS MUST USE THE TEMPORARY OR PERMANENT
PROJECT LAND COVER CONDITION, WHICHEVER WIL PRODUCE THE HIGHEST Low rates. If USING THE WESTERN WASHINGTON HYDROLOGY MODEL (Ww Predict flows, bare soil areas should be modeled as "Landscaped" REA.
 lement 7: protect draininlet
an or orerable during construction so HAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYST
wITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT. CLEAN OR REMOVE AND REPLACE INLET PROTECTION DEVICES WHEN SEDIMEN TANDARD IS SPECIFIED BY THE PRODUCT MANUFACTURER).

## ement 8: stabilze channels and outle

DESIGN, CONSTRUCT, AND STABLLIZE ALL ON-SITE CONVEYANCE ChANNELS To
REVENT EROSION FROM THE FOLLOWING EXPECTED PEAK FLOWS ChANNELS MUST HANDLE THE PEAK 10 -MINUTE vELOCTTY OF FLOW FROM A
 Continuous runoff model, increased by a factor of 1.6, MAY be used. THE HYDROLOGIC ANALYSIS MUST USE THE EXISTING LAND C CVER CONIITION
FOR PREDICTING FLLOW RATES FROM TRIBUTARY ANEAS OUTSIDE THE PRIIICT LIMITS. FOR TRIBUTARY AREAS ON THE PROIECT SITE, THE ANALYSIS MUST USE THE TEMPORARY OR PERMANENT PROIECT LAND COVER CONDITION, WHICHEVE WILL Produce the highest flow rates if using the western washingion
Hyprology Model (wwhm to predict flows, bare soll areas shoul be MODELED AS "LAADSCAPED AREA.
PROVIDE STABIIIATION, INCLUDING ARMORING MATERIAL, ADEQUATE TO


ELenent 9: CONTROL Pollutants
EESIGN, INSTALL, IMPLEMENT AND MAINTAIN EFFECTIVE PoLLUTION HANDLE AND DISPOSE OF ALL POLLUTANTS, INCLUDING WASTE MATERIALS ND DEMOLITION DEBRIS THAT OCCUR ON-SITE IN A MANNER THAT DOES NO CAUSE CONTAMINATION OF STORMWATER.
PROVIDE COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM FOR

 SECONDARY CONTAINMENT. SECONDARY CONTANMENT MEANS PLACLNG ANKS OR CONTAINERS WITHIN AN IMPERVIIOUS STRUCTURE CAPABLE OF
ONTAINING $110 \%$ OF THE VOLUME CONTAINED IN THE LARGEST TAKE WITHIN
 CONDUCT MAINTENANCE, FUELING, AND REPAIR OF HEAVY EQUIPMENT AND ontaminated surfaces immediately following any spil incident. DIICHARGG WHEEL WASH OR TIRE BATH WASTEWATE TO A SEPARARATE N-SITE TREATMENT SYSTEM THAT PREVENTS DISCHARGE TO SURFACE
ATER, SUCH AS CLOSED-LOOP RECIRCULATION OR UPLAND APPLCATION O TO THE SANITTARY SEWER, WITH LOCAL SEWER DISTRICT APPROVAL.
APLY FERTIIZRS AND PESTICIDES I A MANNER AND AT APPIC APPLY FERTLLIZERS AND PESTICIDES IN A MANNER AND AT APPLLCATION
RATES THAT WIL NOT RESUTTIN IOSS OF CHEMICAL TO STORMWATER RUNOFF. FOLLOW MANUFACTURERS' LABEL REQUIREMENTS FOR APPLCATIO ATES AND PROCEDURES.
USE BMPS To Prevent Contamination of stormwater runoff by ph

 Dewatering concrete vaults, concrete pumping and mixer washou aters.
Dust the ph of stormwater if necessary to preyent violations of WATtR Quality standards.
ASSIGE TATET WASHOUU OF CONCRETE TRUCKS IS PERFORMED OFF-SITE OR I. DESIGNATED CONCRETE WASHOUT AREAS ONLY. DO NOT WASH OUT
CONCRETE TRUCKS ONTO THE GROUND, OR INTO STORM DRAINS, open ditches, streets, or streams. do not dump excess concrete on-site,
 ONCRETE DISCHARGE TO SURFACE WATERS OF THE STATE IS Prohibited.
OBTAIN WRITEN APPROVAL FROM ECOLOGY BEFORE USIIG CHEMICAL TREATMENT OTHER THAN CO2 OR DRY ICE TO ADUUST PH.

## tement 10: control de-watering

discharge foundation vault and trench de-watering water, weic AS SIMILAR CHARACTERISTICS TO STORMWATER RUNOFF AT THE SITE, INTO OR SEDIMENT POND. DISCHARGE CLEAN, NON-TURBID DE-WATERING WATER, SUCH AS WELL-POIN Ground water, To systens tributary to, or directly into surfac
waters of the state, As specifid in Element \#8, provided the DEWATERING FLOW Does not cause erosion or flooding of recerving EDIMENT PONDS. NOTE THAT "SERFACE WATERS OF THE STATE" MAY EXIST NNING THROUGH A SITE WEL ANNING THROUGH A SITE
Tter SEPARATELY FROM STORMWITE CONTAMINATED DEWATERING OTHER TREATMENT OR DISTOOSAL OPTIONS THER TREATMENT OR DISPOSAL OPTIONS MAY INCLUDE: 1. INFILTRATIIN. 2.
RANSPORT OFF-STTE IN A VEHICLE, SUCH AS A VACUUM FLUSH TrUCK, FOR
 Cology-aprod ive on-site chemical treatment or other suitable ith local sewer district approval, if there is no other option. s. us a SEDMENTATIO Will OUTFL OLumes of Localized dewatering
ement 11: maintain bup
AINTAN AND REPAIR ALL TEMPOR ary and permanent erosion and SERFRMANCE OF THEIR INTENDED FUNCTION IN ACCORDANCE WITH BMP SECIFICATIONS.
sedment control bups within EMPORARY BMPS ARE NO LONGER NEEDED
elenent 12: manage the project
Phase development proiects to the maximum degree practicable an TAKE INTO ACCOUNT SEASONAL WORK LIMITATION
INSEECTION AND MONITORING - INSPECT, MAINAI
NEEDCD TO ASSURE CONTINUED PERFORMMANCE OF THEIR RTEAR ALL BMPS AS PROIECTS REGULATED UNDER THE CONSTRUCTION STORMWATRE GENER IN
PERMIT MUST CONDUCT SITE INSECTIONS PERN MITH SPCIAL CONDITION S4 OF THE CONSTRUCTIO NTORING IN ACCORDANCE PERMIT. implement the swppr. PROIECTS THAT DISTURB ONE OR MORE ACRES MUST HAVE SITE INSPECTIONS
CONDUCTED BY ACRTIIIED EROSON AND SEDMENT COVTRO PROIECT SITES DISTURBING LESS THAN ONE ACRE MAY HAYEA LEAD (CESCL PERSON WITHOUT CESCL CERTIFICATION CONDUCT INSPECTIONS. BY THE INITIATION O CONSTRUCTIN, THE SWPPP MUST IDENTIFY THE CESCL OR THE CESCL OR INSPECTOR (PROIECT SITES LESS THAN ONE ACRE) MUST HAVE THE SKILLS TO ASSESS THE:
SITE CONDITIONS AND CONSTRUCTION ACTivites THAT COULD IMPACT THE
QUALITY OF STORMWATER.
EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES USED TO CONTROL THE E UALITTY OF STORMWATER DISCHARGES. THE CESCL OR INSPECTOR MUST EXAMINE STORMWATER VIIUALLY FOR THE
PRESENCE OF SUSPENDED SEDMENT, TURBIDTYY, DISCOLOR ATION

 Inspection, Construction site operators must correct the problems IDENTIFIED BY:
REVIEWNGTHE
REVIEWING THE SWPPP For Complance with the 13 Construction swpp
ELEMENTS AND MAKING APPROPRIATE REVISIONS wITHN 7 DAYS of twi ELEMENTS A
immediately begnag thecess fur
MAINTAINING APGROPRIATEE SOURCE CONTROL AND/OR TREATMENT BMPS AS

 request an extension within the initial 10-dAy response period. DOCUMENTING BMP IMPLEMENTATION AND MAINTENANCE IN THE STTE LOG Book (SITES LARGER THAN 1 ACRE)
THE CESCL OR INSEECTOR MUST IN
Construction activities, all bmpe, a POINTS AT LEAST ONCEEVEVEY CALENSAR WELK AND AITMATHIN DISCHARGE DISCHARGE FROM THE SITE. (FOR PURPOSES OF THIS CONDITION, INDIIDUAL
DISCHARGE EVENTS THAT LAST MORE THAN ONE DAY DO NOT REQUIRE DALY
 CONTINUOUSLY OVER THE COURSE OF A WEEK, ONLY ONE INSPECTION IS
REQURED THAT WEEK.) THE CESCL OR INSPECTOR MAY REDUCE THE RERURED THAT WEEE. THE CEECC OR INSPECTOR MAY REDUCE THE
INSEETION RREUENCY FR TEMPORARY STABIIZED, INACTIVE STIES TO
 SEDIMENTATION THROUGH INSTALLATION AND MANTTENANCE OF EROSION the bioretention andor rain garden bmps. restore the bmps to
 DURING Construction. restoring the bup must include removal of
SEDIMENT AND ANY sEDMENT-LADEN bioretentionrain garden soils, AND REPLACING THE REMOVED SOLLS WITH SOLLS MEETING THE DESIGN SPECIFICATION.
PREVENT COMP
prevent compacting bioretention and rain garden bmps by EXCLUDING CONSTRUCTION EPUPMPMENT AND FOOT TRAFFIC. PROTECT
COMPLETED LAWN AND LANDSCAPED AREAS FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT
CONSTRUCTION EQUPMENT.
CONTROL EROSION AND AVOID INTRODUCING SEDIMENT FROM SURROUNDING LAND USES ONTO PERMEABLE PAVEMENTS. DO NOT ALLOW MUDOY CONSTRUCTION EQUPMENT ON THE BASE MATERIAL OR PAVEMMNT. BASE MATERIALS.
PAVEMENT FOULED WITH SEDIMENTS OR NO LONGER PASSING AN INTIIAL PAVEMENT FOULED WITH SEDIMENTS OR No LONGER PASSING AN INTIAL
INFITRATION TEST MUST BE CLEANED USING PROCEDURES IN ACCORDANCE WITH THIS MANUAL OR THE MANUFACTURER'S PROCEDURES. KEEP ALL HEAVY EQUIPMENT OFF EXISTING SOLLS UNDER LID FACLITTIES that have been dan and to final grade to retain the THAT HAVE BEENEXCAVATED To
INILTRATION RATE OF THE SOILS.















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REPARATIN AND PLANIING NOTES $\qquad$
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 NVASIVE REMOVAL NOTES







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SPLT－RALL CEDAR FENCE DETALL


